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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/179,872

10/28/1998

PAN-JIN KIM

1317.1055

6192

21171 7590 12/22/2010
STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

BROWN, RUEBEN M

ART UNIT

PAPER NUMBER

2424

MAIL DATE

DELIVERY MODE

12/22/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/179,872	KIM ET AL.	
	Examiner	Art Unit	
	REUBEN M. BROWN	2424	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 30 September 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-6,17,27-29 and 31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-6,17,27-29 and 31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/20/10</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection. Vancelette teaches that multiple channels of video are received through a demanded major channel. However, the reference does not teach the claimed feature of displaying the channel numbers of the minor channel. Nevertheless, it would have been obvious for one of ordinary skill in the art at the time the invention was made.

Examiner points out that the feature of displaying the channel numbers of the minor channels is essentially a GUI modification of Vancelette, since that reference clearly teaches that the minor channels are received through the major channel, but does not show the channel numbers. The Torre reference cited, but not relied further teaches that it would have been obvious to show the minor channel numbers of Vancelette, using a hierarchical menu. Examiner points out that under KSR a 103 rejection may be sustained if the combination of reference would yield expected results. In this instance the combination would yield a display with the main or major channel shown on the screen, along with the channel numbers of the minor channel received through the instant major channel.

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Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 17 & 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vancelette, (U.S. Pat # 5,894,320), in view of Kim, (U.S. Pat # 5,838,386).

Considering claims 1 & 17, the amended claimed method for displaying channel information on a digital TV for receiving digital multichannel TV broadcasting, comprising

‘changing a current channel to a demanded major channel in response to a demand to change a major channel’, is met by the disclosure of Vancelette that teaches a customer selecting a primary channel, which is transmitted/delivered on a particular RF channel, see col. 10, lines 21-35.

As for the amended claimed feature of ‘*displaying on a TV screen, as a viewing program, a program of a minor channel received through the demanded major channel*’, Vancelette teaches that the minor channel selected by the viewer is displayed on a TV screen, see col. 10, lines 10-56.

Regarding the additionally recited, 'displaying on the TV screen, minor channel numbers of programs received through the demanded major channel', Vancelette teaches that a plurality of minor channels may be received through a primary channels, col. 4, lines 6-15; col. 6, lines 5-50; col. 7, lines 25-67. Even though Vancelette discloses that the user is enabled to choose from a plurality of minor channels, see col. 6, lines 1-15, the reference does not discuss displaying the channel numbers of the alternate programming for the viewer.

Kim provides a teaching of a system that shows a display screen with a main channel 0 and at least three sub-channels, CH1; CH2 & CH3; col. 6, lines 8-23 & Fig. 6. Thus, the combination of Vancelette, in view of Kim reads on the claimed feature '*displaying on a TV screen, as a viewing program, a program of a minor channel received through the demanded major channel*'... '*wherein the displayed minor channel numbers comprise at least one minor channel number corresponding to a program of a minor channel which is not currently being displayed on the digital TV*'. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Vancelette with the feature of showing the channel numbers on the screen for the known advantage of helping the subscriber to choose the correct channel.

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As for the specifics of displaying the channel number on a 'digital television screen', Vancelette appears to operate by converting the digital TV signal to an analog signal. However, Kim is directed to a digital televisse screen, see col 6, lines 8-11.

Considering claim 17, the claimed apparatus and device for displaying channel information on a digital TV, comprising elements that correspond with subject matter mentioned above in the rejection of claim 1, are likewise treated.

Considering claim 27, Vancelette operates outside of an EPG environment. Therefore, the viewer in Vancelette changes channels outside of an EPG environment.

Considering claim 28, the claimed feature of '*automatically displaying*' is broad enough to read on displaying the video programming in Vancelette & Kim, automatically, after the instant video programming has been selected by the user.

Considering claim 29, Vancelette teaches that the plurality of digital channels are multiplexed together and modulated on a single RF channel, col. 8, lines 21-45, which meets the claimed subject matter.

5. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vancelette, & Kim, further in view of Etheredge, (U.S. Pat # 6,172,674).

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Considering claims 4 & 6, Vancelette & Kim do not teach hiding the major or minor channel numbers after a prescribed time has elapsed. Nevertheless, Etheredge provides a disclosure of removing a particular pop-menu that has been activated by the user, after a certain time, if a channel selection or menu item selection has not been made, (col. 13, lines 26-50; col. 14, lines 4-40; col. 15, lines 10-25). It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify the combination of Vancelette & Morrison with the technology taught by Etheredge, at least for the known advantage of reducing the amount of extraneous information displayed to the viewer, since after a certain amount of time it may be assumed that the viewer is no longer interested in making a channel change from the menu displayed on the TV screen.

Considering claim 5, the claimed subject matter reads on Fig. 2 of Morrison that shows that the user is displayed the list of minor channel numbers after a minor channel number has been tuned/ i.e., selected by the user.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

A) Torre Teaches the well known GUI practice of creating a hierarchal menu of items related, that are within a higher element.

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Any response to this action should be mailed to:

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or faxed to:

(571) 273-8300, (for formal communications intended for entry)

Or:

(571) 273-7290 (for informal or draft communications, please label
"PROPOSED" or "DRAFT")

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Reuben M. Brown whose telephone number is (571) 272-7290. The examiner can normally be reached on M-F (9:00-6:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on (571) 272-7331. The fax phone numbers for the organization where this application or proceeding is assigned is (571) 273-8300 for regular communications and After Final communications.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Reuben M. Brown/
Patent Examiner, Art Unit 2424